Amendments to the Claims:

Please cancel claims 1 to 8 as presented in the underlying International Application No. PCT/EP2003/009915 without prejudice.

Please add new claims 9 to 16 as indicated in the listing of claims below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 8 (cancelled).

Claim 9 (new): A method for mounting a plurality of add-on parts on a work piece, the add-on parts being attached to the work piece so as to be oriented with respect to one another in a precisely positioned fashion, a mounted tool guided using a robot feeding and positioning each add-on part, at least one of the mounting tools including a securing device for receiving the respective add-on part, a sensor system being fixedly connected to at least one of the mounting tools and having at least one sensor, the method comprising the following steps:

moving the mounting tools using an iterative closed-loop control process using measured values of the at least one sensors into a preliminary position, the add-on parts in the preliminary position being held in the mounting tools and being oriented with respect to one another in a positioned fashion,

moving the mounting tools with the oriented add-on parts held therein from the preliminary position into a mounting position with respect to the work piece, the add-on parts being connected to the work piece in the mounting position.

Claim 10 (new): The method as recited in claim 9 wherein the iterative closed-loop control process includes the following control loop steps:

generating actual measured values of the at least one sensor are generated,

comparing the actual measured values with setpoint measured values generated during a

set up phase,

calculating a movement vector of the mounting tools from a difference between the actual measured values and the setpoint measured values using a Jacobi matrix,

moving the mounting tools by an amount equal to the movement vector.

Claim 11 (new): The method as recited in claim 9 wherein the moving into the mounting position step includes running a second iterative closed-loop control process to orient the add-on parts with respect to a reference area on the work piece in a positioned fashion using measured values of the at least one sensor.

Claim 12 (new): The method as recited in claim 9 wherein after the preliminary position has been reached, movements of the robots are coupled so that when the mounting position is reached the positioned orientation of the add-on parts with respect to one another is retained.

Claim 13 (new): The method as recited in claim 9 wherein the add-on parts are a driver door and a rear door of a vehicle body, the driver door and rear door being oriented with respect to one another in a positioned fashion and being screwed securely to door openings in the vehicle body.

Claim 14 (new): The method as recited in claim 9 wherein the work piece is a vehicle body.

Claim 15 (new): A method for mounting a first add-on part and a second add-on part on a work piece, the first add-on part being attached to the work piece so as to be oriented with respect to the second add-on part in a precisely positioned fashion, a first mounted tool guided using a first robot feeding and positioning the first add-on part and a second mounted tool guided using a second robot and positioning the second add-on part, the first mounting tool including a securing device for receiving the first add-on part, a first sensor being fixedly connected to the first mounting tool and a second sensor being fixedly connected to the second mounting tool, the method comprising the following steps:

moving the first and second mounting tools using an iterative closed-loop control process using measured values of the first and second sensors into a preliminary position,

the first and second add-on parts in the preliminary position being held in the first and second mounting tools respectively and being oriented with respect to one another in a positioned fashion,

moving the first and second mounting tools with the oriented first and second add-on parts held respectively therein from the preliminary position into a mounting position with respect to the work piece, the first and second add-on parts being connected to the work piece in the mounting position.

Claim 16 (new): The method as recited in claim 15 wherein the iterative closed-loop control process includes the following control loop steps:

generating actual measured values of the first and second sensors are generated,

comparing the actual measured values with setpoint measured values generated during a set up phase,

calculating a movement vector of the first and second mounting tools from a difference between the actual measured values and the setpoint measured values using a Jacobi matrix,

moving the first and second mounting tools by an amount equal to the movement vector.

Claim 17 (new): The method as recited in claim 15 wherein the moving into the mounting position step includes running a second iterative closed-loop control process to orient the first and second add-on parts with respect to a reference area on the work piece in a positioned fashion using measured values of the first and second sensors.

Claim 18 (new): The method as recited in claim 15 wherein after the preliminary position has been reached, movements of the first and second robots are coupled so that when the mounting position is reached the positioned orientation of the first and second add-on parts with respect to one another is retained.

Claim 19 (new): The method as recited in claim 15 wherein the first add-on part is a driver door and the second add-on part a rear door of a vehicle body, the driver door and rear door being oriented with respect to one another in a positioned fashion and being screwed securely to door openings in the vehicle body.

Claim 20 (new): The method as recited in claim 15 wherein the work piece is a vehicle body.

Claim 21 (new): A mounting system for simultaneously mounting a plurality of add-on parts on a work piece comprising:

a plurality of robots, each fitted with a mounting tool for receiving an add-on part;

an open-loop control system having, for each robot, a processing program for open-loop controlling a path of the robot and for open-loop controlling a movement of the mounting tool;

a sensor system including at least one sensor fixedly connected to a first of the mounting tools, the at least one sensor being directed to a reference area of an add-on part held in a second of the mounting tools; and

an evaluation unit for evaluating measured values of the sensor system.

Claim 22 (new): The mounting system as recited in claim 21 wherein the at least one sensor is a metrically noncalibrated sensor.

Claim 23 (new): The mounting system as recited in claim 21 further comprising a TCP/IP interface for communication between the open-loop control system and the evaluation unit.